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**(54) PRODUCTION OF HYDROGEN PEROXIDE**

**(57) Abstract:**

**PROBLEM TO BE SOLVED:** To produce  $H_2O_2$  high in conc. under low pressure with high hydrogen selectivity by using a specified catalyst when  $H_2O_2$  is produced by catalytically reacting  $O_2$  with  $H_2$  in a reaction medium.

**SOLUTION:** The catalyst used is prepared by depositing titania and platinum group metal (e.g. Pd) on a carrier preferably comprising silica or alumina, or by depositing titania on a carrier and further depositing

platinum group metal. Titania is preferably obtd. by hydrolyzing titanium alkoxide (e.g. ortho ethylitanate) as the source material to obtain titanium hydroxide, depositing the obtd. titanium hydroxide on the carrier surface, and calcining preferably at 300 to 1,000°C.  $H_2O_2$  is produced by catalytically reacting  $H_2$  with  $O_2$  in a reaction medium which is a soln. containing acid (e.g. phosphoric acid) and halide (NaBr) in the presence of the catalyst at the pressure of 0.1 to 2MPa.

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